

LEGEND

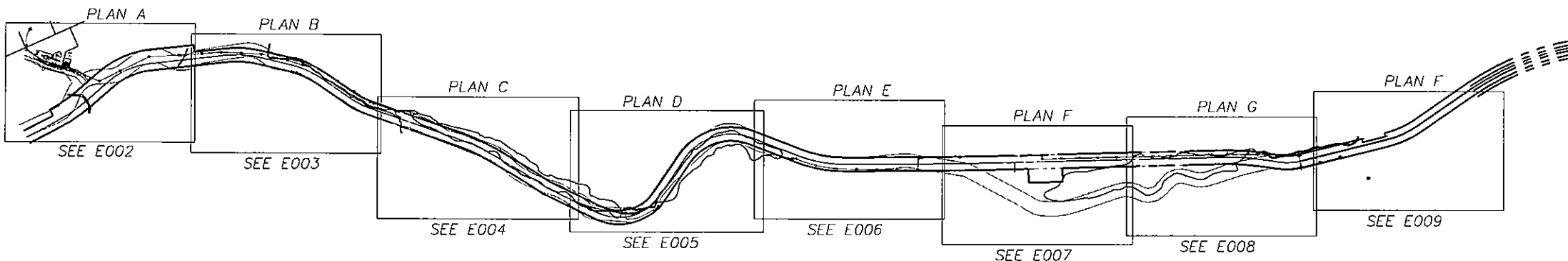
- ROAD CENTERLINE
- EXISTING RIGHT OF WAY
- OLD RIGHT OF WAY
- WATER
- OH ELECTRIC DISTRIBUTION LINE
- UG ELECTRIC DISTRIBUTION LINE
- HDPE CONDUIT
- EXISTING POLE
- APPROXIMATE LOCATION OF POLE
- GUY AT 1:1, UNLESS NOTED OTHERWISE
- PAD MOUNTED JUNCTION BOX
- PAD MOUNTED TRANSFORMER

ELECTRICAL SHEET INDEX

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- E002 PARTIAL PLAN A ELECTRICAL LAYOUT
- E003 PARTIAL PLAN B ELECTRICAL LAYOUT
- E004 PARTIAL PLAN C ELECTRICAL LAYOUT
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- E011 DETAILS
- E012 DETAILS
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- E014 DETAILS

GENERAL NOTES

- ALL WORK SHALL COMPLY WITH MOST RECENT EDITION OF THE NESC.
- POLE LOCATIONS AND POLE FRAMING AND GUYING MAY BE FIELD ADJUSTED TO ACCOMMODATE RIGHT-OF-WAY CONFLICTS NOT EVIDENT PRIOR TO CLEARING.
- NEUTRAL SHALL NOT CROSS PRIMARY IN ANY SPAN.
- PROVIDE ALL ANCHOR PLACEMENTS AT 1:1 MEASURED AT THE UPPERMOST GUY ATTACHMENTS, UNLESS OTHERWISE NOTED.
- SOURCE IS NEW POWER PLANT; FRAME DOUBLE DEADEND POLES WITH THE SOURCE DEADEND ABOVE.
- SEE E014 FOR DETAIL SCHEDULE OF STANDARD RUS DETAIL REFERENCES FOR DETAILS USED, BUT NOT DRAWN FOR THIS PROJECT.



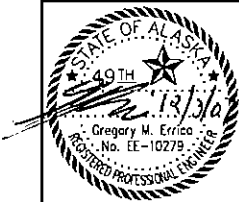
ELECTRICAL LAYOUT – OWNER PROPOSED ALIGNMENT

ALASKA ENERGY AUTHORITY

RURAL POWER SYSTEM UPGRADE
CHITINA, ALASKA



FOR CONSTRUCTION
REVISIONS:



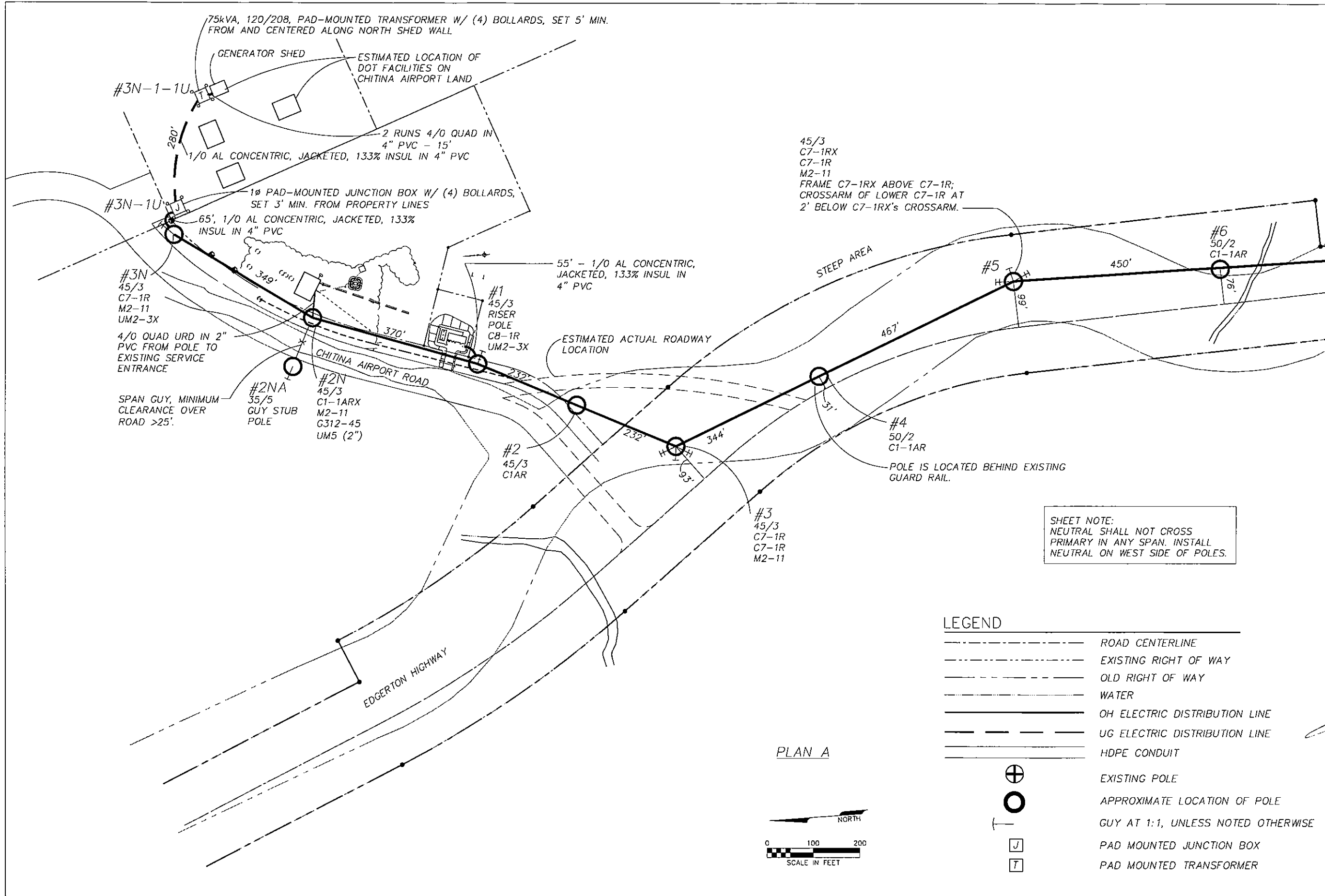
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DATE: 12/3/07
JOB NUMBER: 56630
SCALE: AS SHOWN

DRAWING TITLE:
REFERENCE PLAN
ELECTRICAL
LAYOUT

ERRICO
ELECTRICAL
ENGINEERING, LLC

SHEET: OF

E001

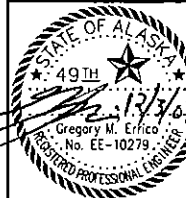


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RURAL POWER SYSTEM UPGRADE
CHITINA, ALASKA



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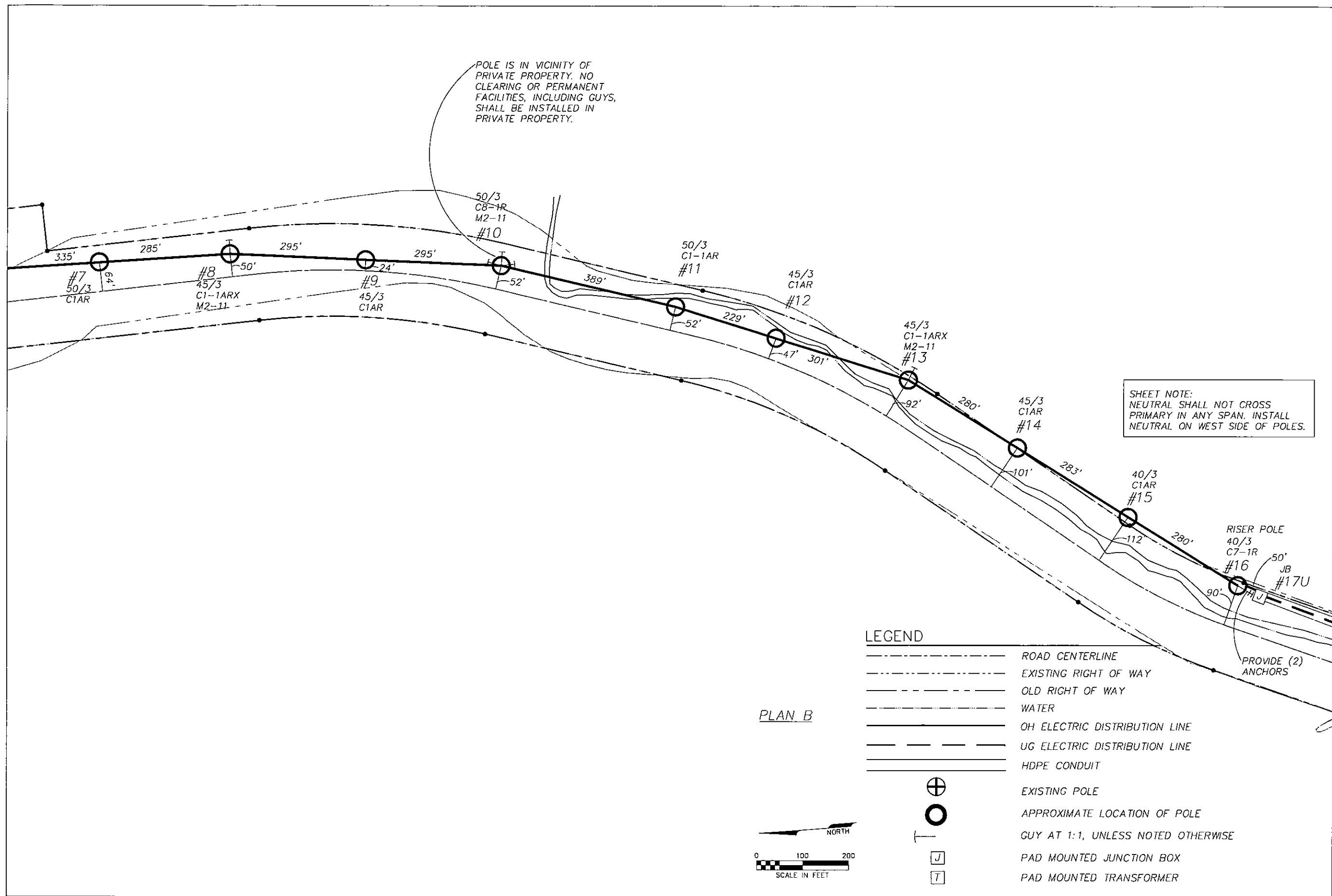
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PARTIAL PLAN A
ELECTRICAL
LAYOUT

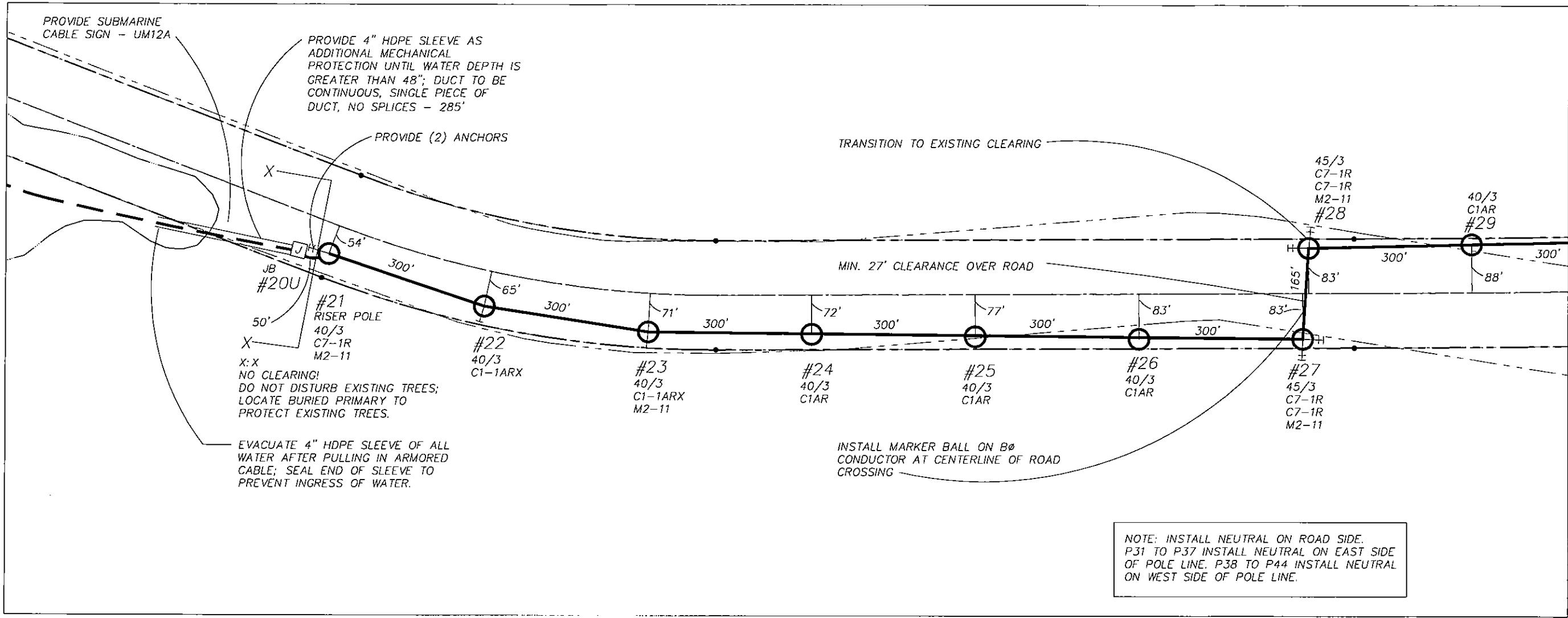
ERRICO
ELECTRICAL
ENGINEERING, LLC

SHEET: OF

E002



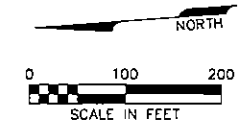
ALASKA ENERGY AUTHORITY	
RURAL POWER SYSTEM UPGRADE CHITINA, ALASKA	
LCMF LLC 6115 2nd Ave. Suite 200 Anchorage, AK 99518 273-1620	
FOR CONSTRUCTION	REVISIONS:
DRAWN BY: GME CHECKED BY: GME DATE: 12/3/07 JOB NUMBER: 56630 SCALE: AS SHOWN	
DRAWING TITLE: PARTIAL PLAN B ELECTRICAL LAYOUT	
ERRICO ELECTRICAL ENGINEERING, LLC PO Box 220471 Anchorage, AK 99517 PH: (907) 345-4144 FAX: (907) 345-4144 Email: eric@errico.com	
SHEET: OF E003	



PLAN E

LEGEND

- ROAD CENTERLINE
- EXISTING RIGHT OF WAY
- OLD RIGHT OF WAY
- WATER
- OH ELECTRIC DISTRIBUTION LINE
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ALASKA ENERGY AUTHORITY

RURAL POWER SYSTEM UPGRADE
CHITINA, ALASKA

FOR CONSTRUCTION

REVISIONS:

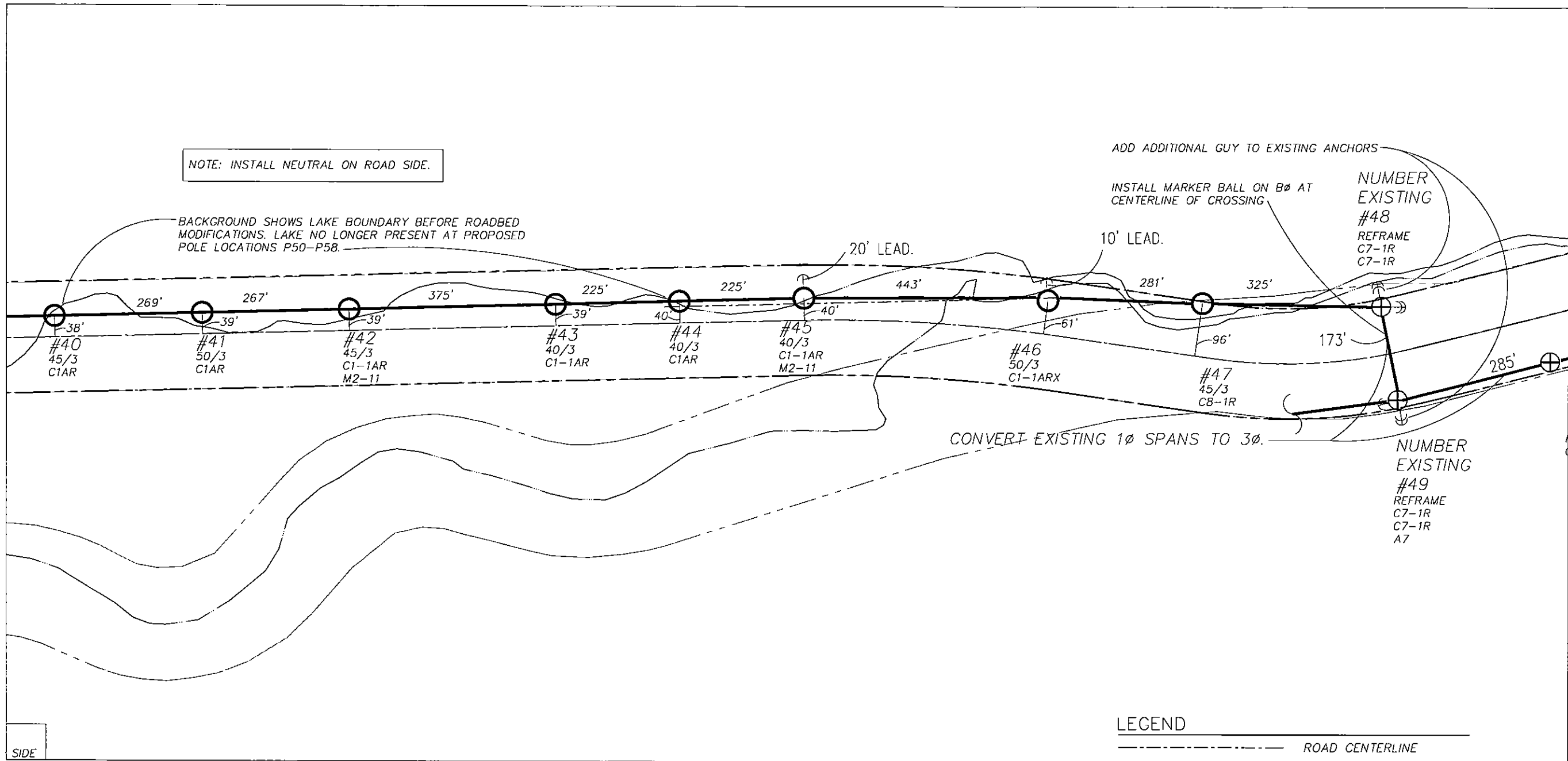
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DRAWING TITLE:
PARTIAL PLAN E
ELECTRICAL
LAYOUT

ENRICO
ELECTRICAL
ENGINEERING, LLC

PO Box 220421
Anchorage, AK 99522
Phone: (907) 245-1100
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SHEET: OF
E006

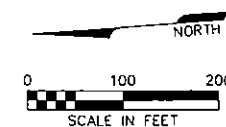


SIDE

PLAN G

LEGEND

- ROAD CENTERLINE
- EXISTING RIGHT OF WAY
- OLD RIGHT OF WAY
- WATER
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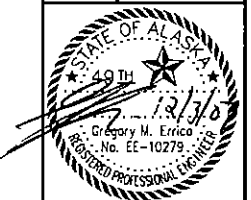


ALASKA ENERGY AUTHORITY

RURAL POWER SYSTEM UPGRADE
CHITINA, ALASKA



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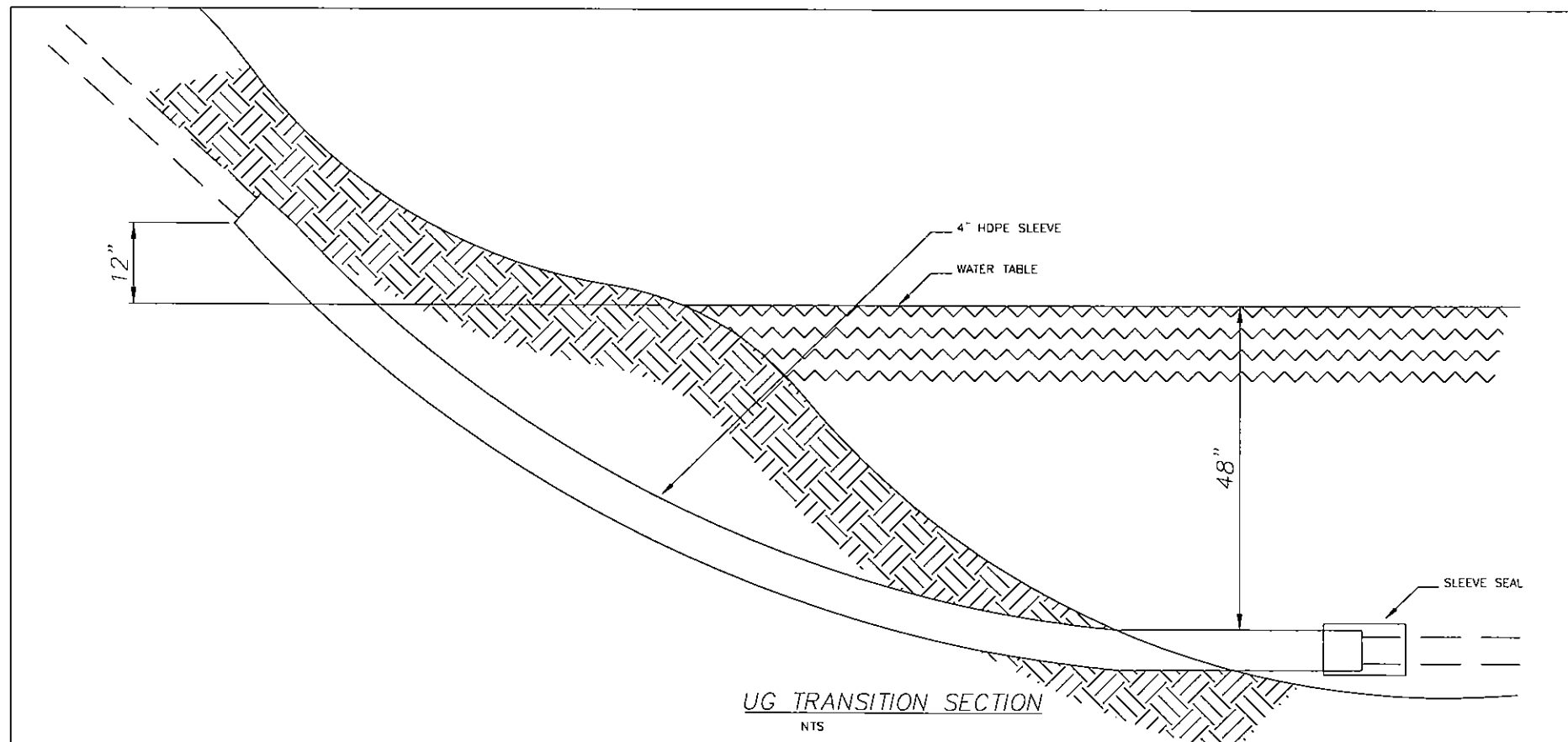
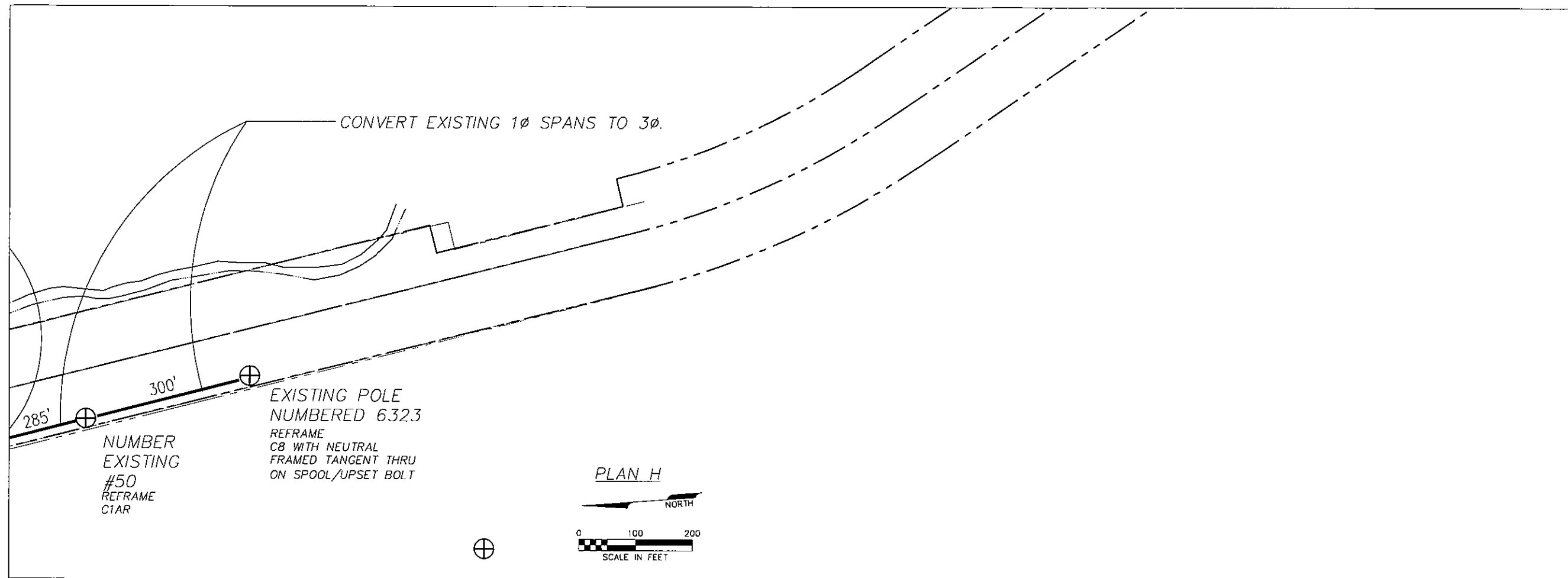
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DRAWING TITLE:
PARTIAL PLAN G
ELECTRICAL
LAYOUT

ERRICO
ELECTRICAL
ENGINEERING, LLC

SHEET: OF

E008



LEGEND

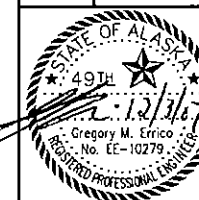
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ALASKA ENERGY AUTHORITY

RURAL POWER SYSTEM UPGRADE
CHITINA, ALASKA



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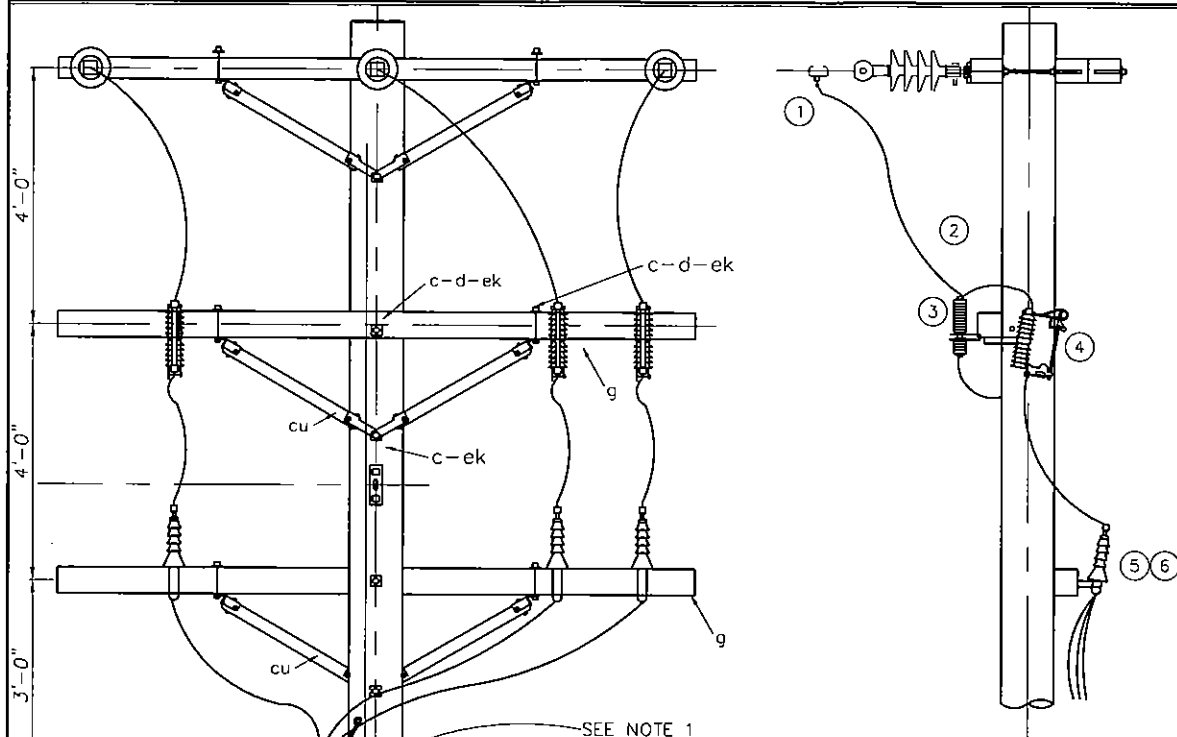
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DRAWING TITLE:
PARTIAL PLAN H
ELECTRICAL
LAYOUT

ENRICO
ELECTRICAL
ENGINEERING, LLC

SHEET: OF

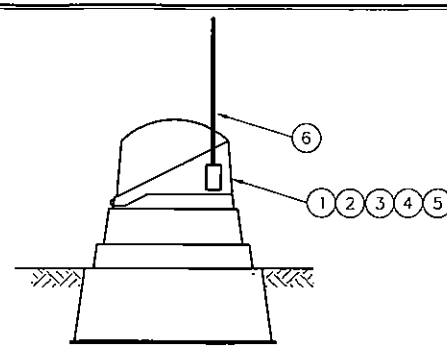
E009



- NOTES:
- POLE GROUND TO BE #4 BARE STRANDED COPPER.
 - JUMPERS SHALL BE CONTINUOUS FROM HOT-LINE CLAMP THROUGH LIGHTNING ARRESTOR AND THEN TO CUT-OUT. JUMPER CONNECTION TO LIGHTNING ARRESTOR SHALL BE SECURE AND DIS-CONNECTABLE WITHOUT SPLICING OR REPLACING THE JUMPER. JUMPER TO BE COVERED (NOT INSULATED).
 - GROUND ARRESTORS, TERMINATIONS, AND NEUTRALS TO POLE GROUND. DOUBLE GROUND RGS RISER PIPES TO POLE GROUND. MAINTAIN A MINIMUM OF 8'-6" SEPARATION BETWEEN BOTTOMMOST STAND-OFF BRACKETS.

MATERIAL LIST		
Item	Qty.	DESCRIPTION
1	3	STIRRUP AND HOT-LINE CLAMP
2	3	JUMPER, #2 STRANDED COPPER, 600V, UV STABILIZED INSULATION
3	3	SURGE ARRESTOR
4	3	CUT OUT, LOAD BREAK, W/ FUSE OR SOLID BLADE
5	3	TERMINATION, 15 KV
6	3	TERMINATION MOUNTING BRACKET WITH HARDWARE
7	as req'd	4" PVC (BELL ENDS ORIENTED DOWNWARD), TOP PIECE WITH BELL END BUSHING
8	as req'd	4" CONDUIT STRAPS
9	2	TRI-FURCATING CONDUIT COMPRESSION SEALING BOOT
10	2	KELLUM GRIP
11	as req'd	STAND-OFF BRACKET
12	1	4" RGS CONDUIT (15')
13	-	SCREW LAG 1/2" X 4", (as required)
14	2	PIPE GROUNDING CLAMP
15	-	NO. 4 STRANDED COPPER, EQUIPMENT GROUNDING, (as required)
16	-	COPPER COMPRESSION CONNECTORS, (as required)
g	2	CROSSARM, 3-5/8" X 4-5/8" X 10'-0"
c	2	BOLT, MACHINE, 5/8 X REQ'D LENGTH
d	4	WASHER, 2-1/4" SQUARE WITH 13/16" HOLE
cu	4	BRACE, WOOD 28"
i	4	BOLT, CARRIAGE, 3/8" X REQ'D LENGTH
ek	-	LOCKNUTS, (as required)

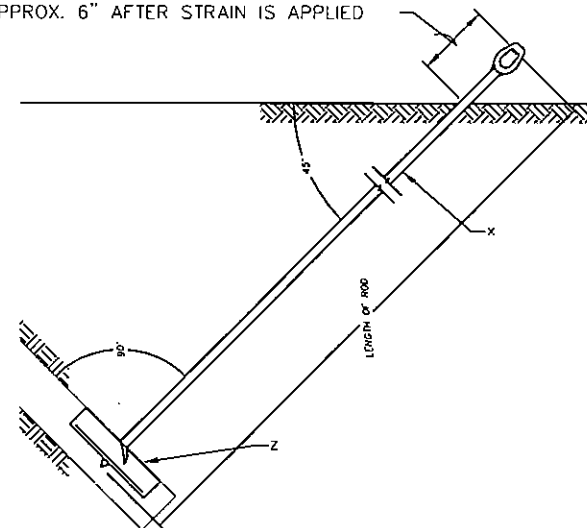
③UM2-3X: THREE PHASE RISER
NTS



MATERIAL LIST		
ITEM	QTY	DESCRIPTION
1	1	FIBERGLASS JUNCTION ENCLOSURE: POWER DESIGN INC. PART#CJP-33/S-50-L2-MG, OR APPROVED EQUAL
2	1	3/4" COPPER CLAD STEEL RODS
3	1	GROUND ROD CLAMP
4	-	#4 BARE STRANDED COPPER, AS REQUIRED
5	3	THREE-POSITION JUNCTIONS
6	1	SNOW MARKER

④UM3-02 JUNCTION BOX
NTS

APPROX. 6" AFTER STRAIN IS APPLIED

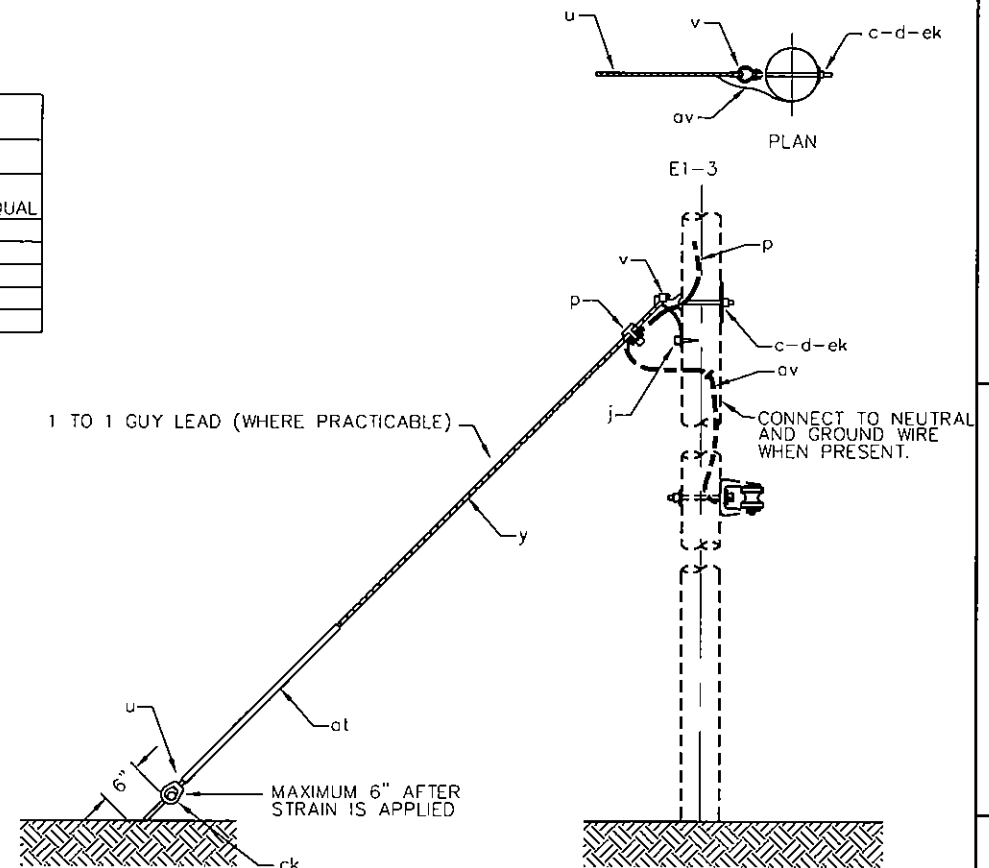


QUANTITY		ANCHOR TYPE - STEEL PLATE ULTIMATE CAPACITY, CLASS 6 SOIL 16,000 LBS.
1		ANCHOR - PLATE, 400 SQ. IN
1		ROD, ANCHOR, TRIPLE EYE

- NOTES:
- RECOMMENDED MINIMUM PROJECTION AFTER PRELOADING IS 6 INCHES. PROJECTION MAY BE INCREASED TO AVOID OVERTORQUING OF THE SHAFT.
 - THE ANCHOR ROD, NUTS, AND PLATE SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.
 - CONTRACTOR SHALL INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

MATERIAL LIST	
NO.	DESCRIPTION
x	ROD, ANCHOR, TWIN EYE, 3/4" X 8'-0"
z	ANCHOR, PLATE, 400 SQ. IN.

②F1-4P: PLATE ANCHOR
NTS



- NOTES:
- FORMED TYPE GRIPS MAY BE USED ONLY WITH SUITABLE ATTACHMENTS, (ITEM V) RECOMMENDED BY GRIP MANUFACTURER.
 - WHERE SEPARATE ANCHORS ARE INSTALLED THE MINIMUM SEPARATION SHALL BE FIVE FEET.
 - SPACING BETWEEN ANCHORS SHALL BE SUFFICIENT TO PROVIDE MAXIMUM HOLDING POWER OF EACH ANCHOR.
 - FOR LOOSE SOILS, CONCRETE OR OTHER, POLE FOOTINGS MAY BE REQUIRED.

MATERIAL LIST		
Item	QTY	DESCRIPTION
c	1	BOLT, MACHINE, 3/4" X REQ'D LENGTH
d	1	WASHER, 4" SQUARE, 3/8 THICK, CURVED WITH 13/16" HOLE
ek	1	LOCKNUTS, 3/4"
j	1	SCREW, LAG 1/2" X 4"
p	-	CONNECTORS, COMPRESSION, AS REQUIRED
u	2	DEADEND, PREFORMED, GUY
v	1	GUY ATTACHMENT (8,500 lbs.)
y	-	GUY STRAND, 3/8", GALVANIZED STEEL STRAND, EHS, AS REQUIRED
al	-	STAPLES, GROUND WIRE, AS REQUIRED
av	-	JUMPERS, GROUNDING, AS REQUIRED, #6 BARE SOLID COPPER
at	1	GUY MARKER, 96" (ORANGE AND YELLOW OR SOLID ORANGE)
ck	1	CLAMP, ANCHOR ROD, BONDING

①E1-3: SINGLE DOWN GUY
NTS

ALASKA ENERGY AUTHORITY

RURAL POWER SYSTEM UPGRADE
CHITINA, ALASKA



FOR CONSTRUCTION
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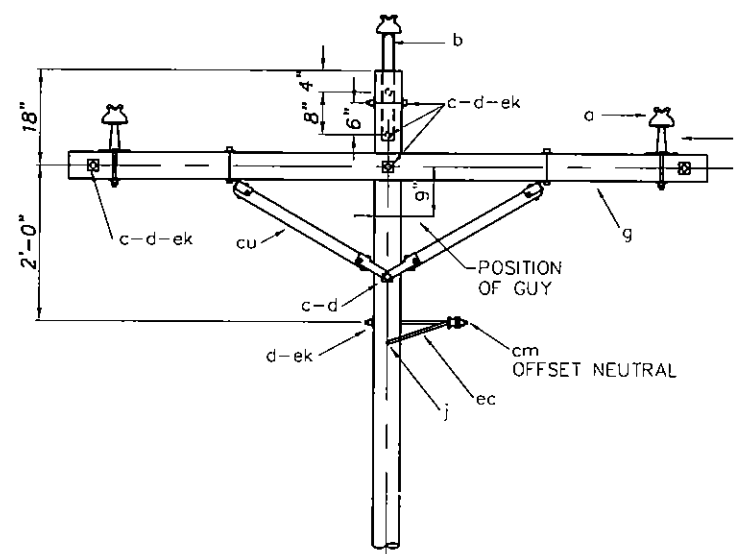
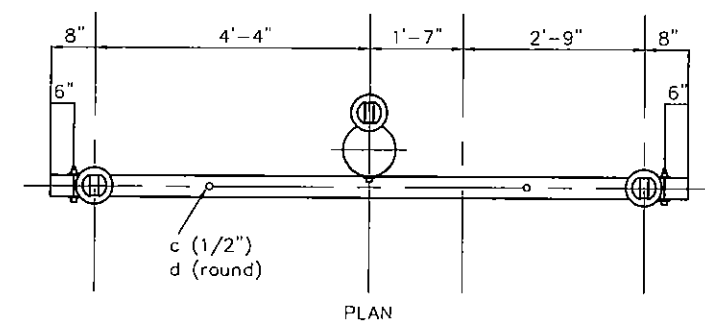
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DETAILS

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ELECTRICAL
ENGINEERING, LLC

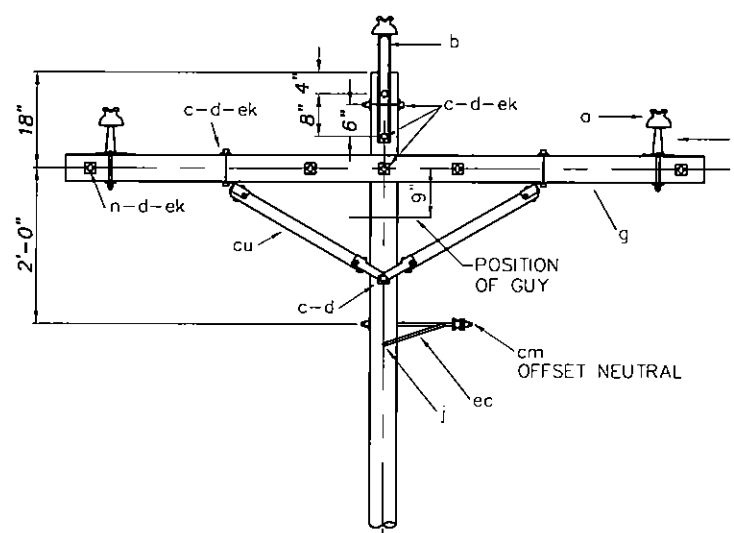
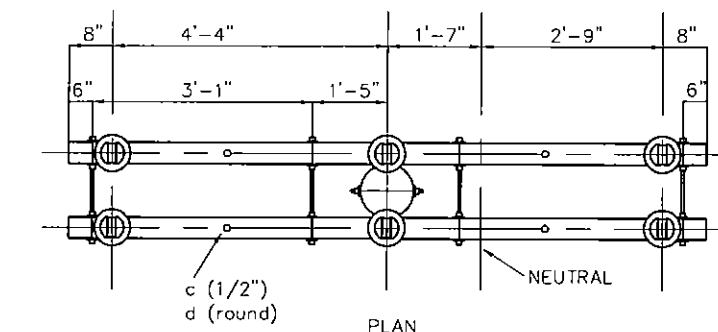
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E010



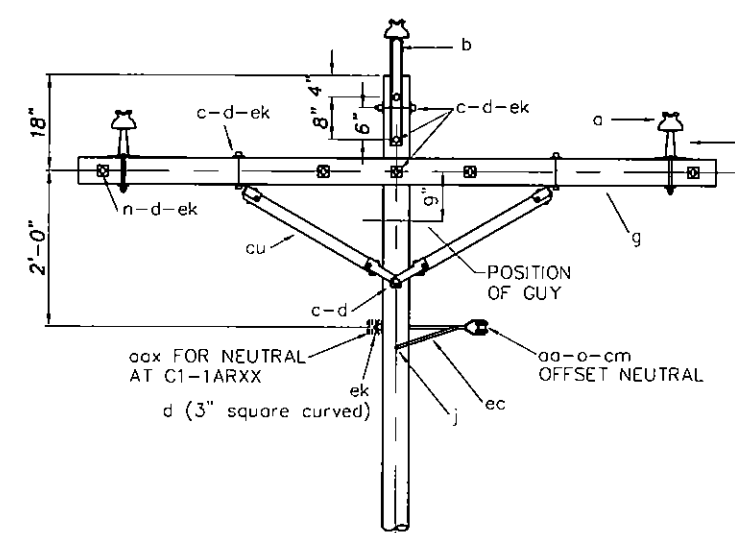
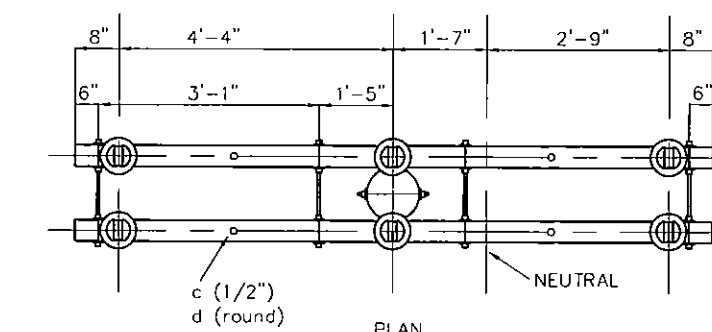
MATERIAL LIST		
NO.	Qty.	DESCRIPTION
a	3	INSULATOR, PIN TYPE, ANSI 55-4
b	1	PIN, pole top, 20", straight or offset
c	7	BOLT, MACHINE, 5/8 X REQ'D LENGTH
c	2	BOLT, MACHINE, 1/2" X REQ'D LENGTH
i	2	SCREW, LAG, 1/2" X 4"
d	2	WASHER, 1-3/8" ROUND WITH 9/16" HOLE
d	12	WASHER, 2-1/4" SQUARE WITH 13/16" HOLE
f	2	PIN, CROSSARM, STEEL, CLAMP TYPE
g	1	CROSSARM, 3-3/4" X 4-3/4" X 10'-0"
cu	1	BRACE, WOOD, 60" SPAN, PAIR
cm	1	INSULATOR, SPOOL, 3"
ec	1	BRACKET, OFFSET NEUTRAL
ek	2	LOCKNUT 1/2"
ek	8	LOCKNUT, 5/8"
-	4	ARMOR ROD
-	3	PREFORMED TANGENT TIE
-	1	PREFORMED NEUTRAL TANGENT TIE

③ C1AR: TANGENT STRUCTURE
NTS



MATERIAL LIST		
NO.	Qty.	DESCRIPTION
a	6	INSULATOR, PIN TYPE, ANSI 55-4
b	2	PIN, pole top, 20", straight or offset
c	1	BOLT, MACHINE, 5/8 X REQ'D LENGTH
c	4	BOLT, MACHINE, 1/2" X REQ'D LENGTH
d	4	WASHER, 1-3/8" ROUND WITH 9/16" HOLE
d	20	WASHER, 2-1/4" SQUARE WITH 13/16" HOLE
f	4	PIN, CROSSARM, STEEL
g	2	CROSSARM, 3-3/4" X 4-3/4" X 10'-0"
i	2	SCREW, LAG, 1/2" X 4"
n	6	BOLT, DOUBLE ARMING, 5/8" X REQUIRED LENGTH
cu	2	BRACE, WOOD, 60" SPAN, PAIR
cm	1	INSULATOR, SPOOL, 3"
ec	1	BRACKET, OFFSET NEUTRAL
ek	4	LOCKNUT 1/2"
ek	20	LOCKNUT, 5/8"
o	1	NUT, EYE, 5/8"
oo	1	LARGE CLEVIS
-	3	ARMOR ROD FOR DOUBLE PIN
-	3	PREFORMED WIRE DOUBLE PIN TANGENT TIE
-	1	ARMOR ROD
-	1	PREFORMED NEUTRAL SPOOL TANGENT TIE

② C1-1AR: TANGENT STRUCTURE
NTS



MATERIAL LIST		
NO.	Qty.	DESCRIPTION
a	6	INSULATOR, PIN TYPE, ANSI 55-4
b	2	PIN, pole top, 20", straight or offset
c	1	BOLT, MACHINE, 5/8 X REQ'D LENGTH
c	4	BOLT, MACHINE, 1/2" X REQ'D LENGTH
d	4	WASHER, 1-3/8" ROUND WITH 9/16" HOLE
d	20	WASHER, 2-1/4" SQUARE WITH 13/16" HOLE
d	1	WASHER, 3" SQUARE CURVED WITH 13/16" HOLE
f	4	PIN, CROSSARM, STEEL
g	2	CROSSARM, 3-3/4" X 4-3/4" X 10'-0"
i	2	SCREW, LAG, 1/2" X 4"
n	6	BOLT, DOUBLE ARMING, 5/8" X REQUIRED LENGTH
cu	2	BRACE, WOOD, 60" SPAN, PAIR
cm	1	INSULATOR, SPOOL, 3"
ec	1	BRACKET, OFFSET NEUTRAL (C1-1ARX ONLY)
ek	4	LOCKNUT 1/2"
ek	20	LOCKNUT, 5/8"
o	1	NUT, EYE, 5/8"
oo	1	LARGE CLEVIS (C1-1ARX ONLY)
-	3	ARMOR ROD FOR DOUBLE PIN
-	3	PREFORMED WIRE DOUBLE PIN SIDE TIE
-	1	ARMOR ROD
-	1	PREFORMED NEUTRAL SPOOL ANGLE TIE
oax	1	LARGE RIGID CLEVIS (C1-1ARXX ONLY)

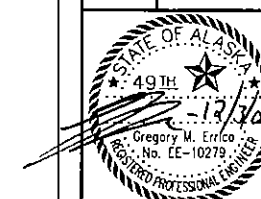
① C1-1ARX: SMALL ANGLE STRUCTURE
NTS

ALASKA ENERGY AUTHORITY

RURAL POWER SYSTEM UPGRADE
CHITINA, ALASKA



FOR CONSTRUCTION
REVISIONS:



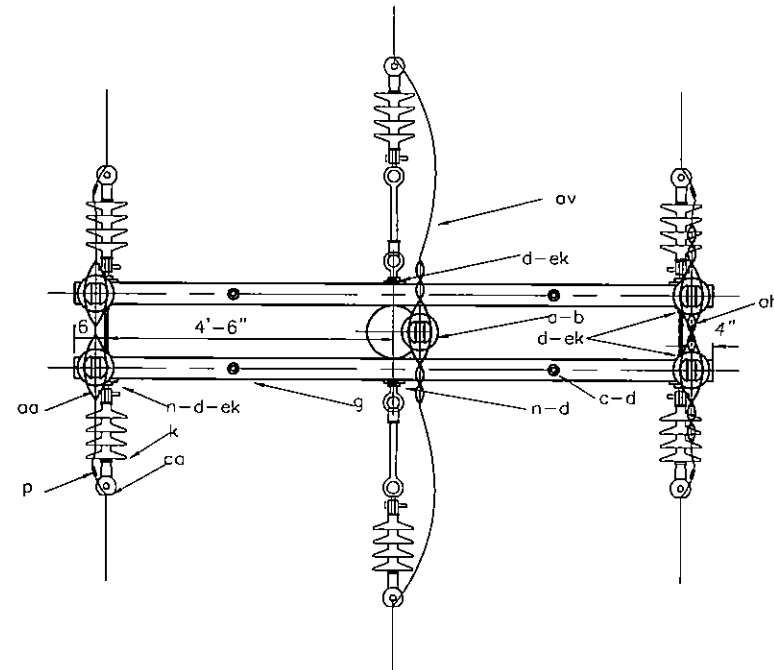
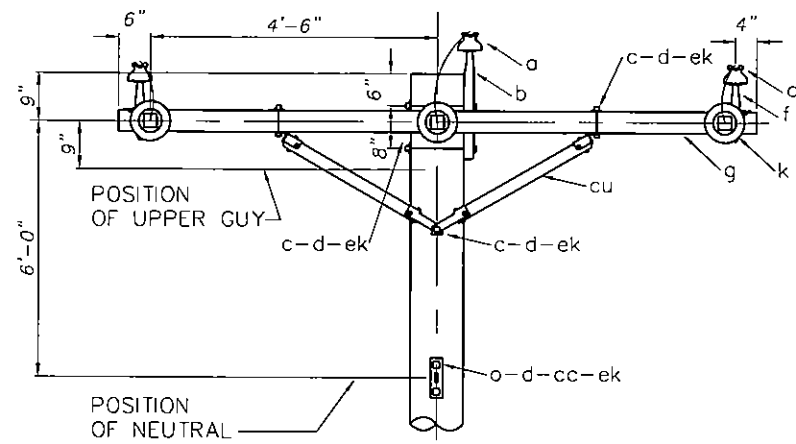
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DETAILS

ERRICO
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ENGINEERING, LLC
PO Box 220471
Anchorage, AK 99522
P.O. #000 248-6148
Fax: (907) 248-1888
Email: gerrico@erico.com

SHEET: OF

E011

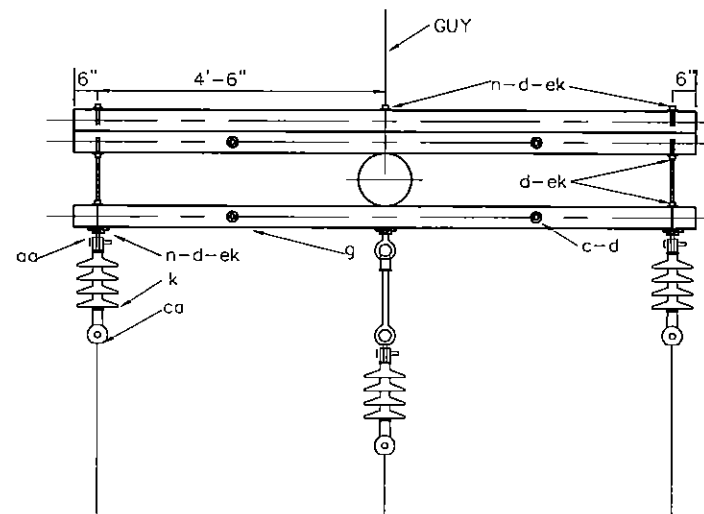
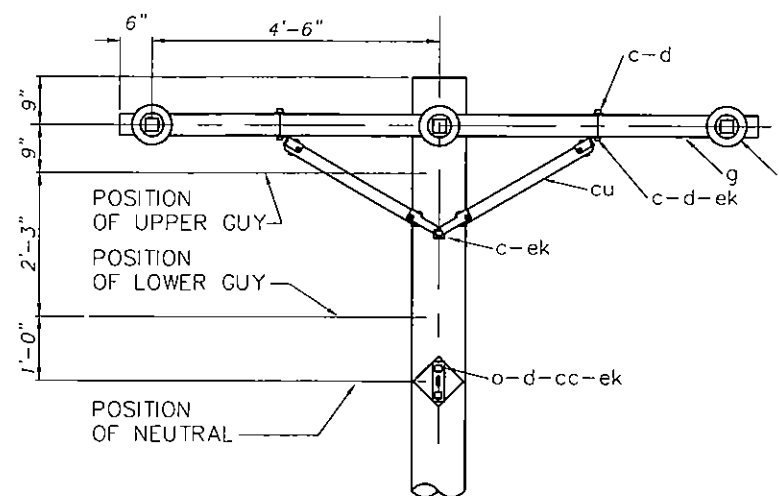


PLAN

MATERIAL LIST

Item	NO.	DESCRIPTION
a	5	INSULATOR, PIN TYPE, 15 kV
oh	5	#4 SOLID ALUMINUM TIE WIRE
aa	7	NUT, EYE, 5/8"
av		JUMPERS, #2 ACSR, AS REQUIRED
b	1	PIN, POLE TOP, 20"
c	4	BOLT, MACHINE, 1/2" X 6"
c	3	BOLT, MACHINE, 5/8" X REQ'D LENGTH
ca	6	DEADEND ASSEMBLY, PRIMARY AUTOMATIC
cc	2	DEADEND ASSEMBLY, NEUTRAL AUTOMATIC
cu	4	BRACE, WOOD, 60" SPAN, PAIR
d	4	WASHER, ROUND, 1-3/8" (9/16" HOLE)
d	12	WASHER, 2-1/4" SQUARE (13/16" HOLE)
d	2	WASHER, 3" SQUARE, CURVED (13/16" HOLE)
ek		LOCKNUTS, AS REQUIRED
f	4	PIN, CROSSARM TYPE
g	2	CROSSARM ASSEMBLY, 3-5/8"x4-5/8"x10'-0"
k	6	INSULATOR, POLYMER, SUSPENSION, 15 kV, (15,000 lb)
n	3	BOLT, DOUBLE ARMING, 5/8" X REQ'D LENGTH
o	1	BOLT, EYE, 5/8" X REQ'D LENGTH
p		CONNECTOR (COMPRESSION TYPE) AS REQUIRED

③ C8-1R: DOUBLE DEADEND ON CROSSARMS
NTS

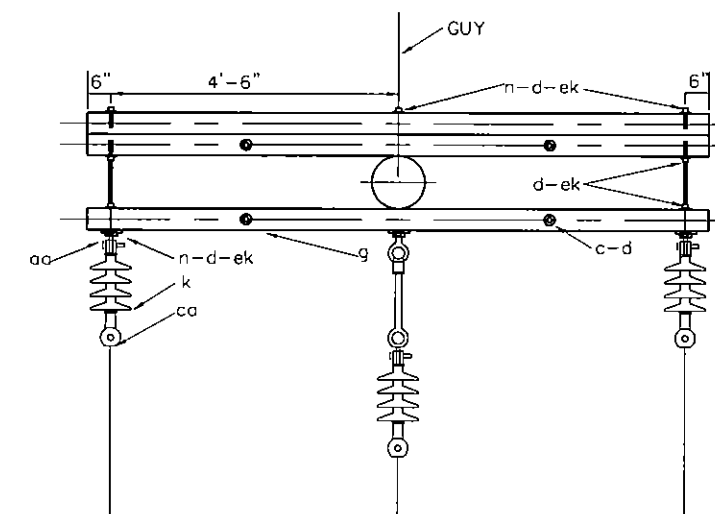
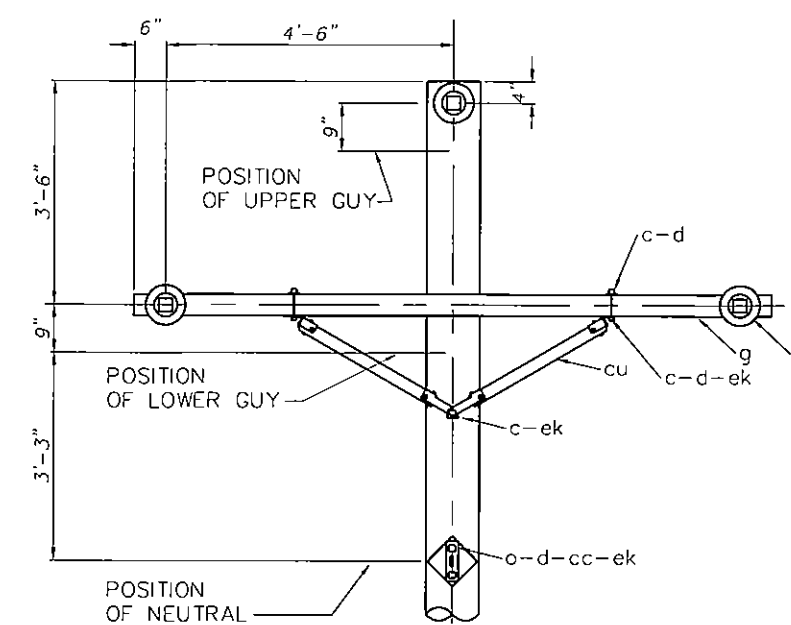


PLAN

MATERIAL LIST

Item	NO.	DESCRIPTION
aa	4	NUT, EYE, 5/8"
c	4	BOLT, MACHINE, 1/2" X 6"
c	1	BOLT, MACHINE, 5/8" X REQ'D LENGTH
ca	3	DEADEND ASSEMBLY, PRIMARY AUTOMATIC
cc	1	DEADEND ASSEMBLY, NEUTRAL AUTOMATIC
cu	4	BRACE, WOOD, 60" SPAN, PAIR
d	4	WASHER, ROUND, 1-3/8" (9/16" HOLE)
d	12	WASHER, 2-1/4" SQUARE (11/16" HOLE)
d	2	WASHER, 3" SQUARE, CURVED (11/16" HOLE)
ek		LOCKNUTS, AS REQUIRED
g	3	CROSSARM ASSEMBLY, 3-5/8"x4-5/8"x10'-0"
k	3	INSULATOR, POLYMER, SUSPENSION, 15 kV, (15,000 lb)
n	3	BOLT, DOUBLE ARMING, 5/8" X REQ'D LENGTH
o	3	BOLT, EYE, 5/8" X REQ'D LENGTH

② C7-1R: SINGLE DEADEND ON CROSSARMS
NTS



PLAN

MATERIAL LIST

Item	NO.	DESCRIPTION
aa	4	NUT, EYE, 5/8"
c	4	BOLT, MACHINE, 1/2" X 6"
c	1	BOLT, MACHINE, 5/8" X REQ'D LENGTH
ca	3	DEADEND ASSEMBLY, PRIMARY AUTOMATIC
cc	1	DEADEND ASSEMBLY, NEUTRAL AUTOMATIC
cu	4	BRACE, WOOD, 60" SPAN, PAIR
d	4	WASHER, ROUND, 1-3/8" (9/16" HOLE)
d	12	WASHER, 2-1/4" SQUARE (11/16" HOLE)
d	2	WASHER, 3" SQUARE, CURVED (11/16" HOLE)
ek		LOCKNUTS, AS REQUIRED
g	3	CROSSARM ASSEMBLY, 3-5/8"x4-5/8"x10'-0"
k	3	INSULATOR, POLYMER, SUSPENSION, 15 kV, (15,000 lb)
n	3	BOLT, DOUBLE ARMING, 5/8" X REQ'D LENGTH
o	3	BOLT, EYE, 5/8" X REQ'D LENGTH

① C7-1R: SINGLE DEADEND ON CROSSARMS
NTS

ALASKA ENERGY AUTHORITY

RURAL POWER SYSTEM UPGRADE
CHITINA, ALASKA



FOR CONSTRUCTION
REVISIONS:



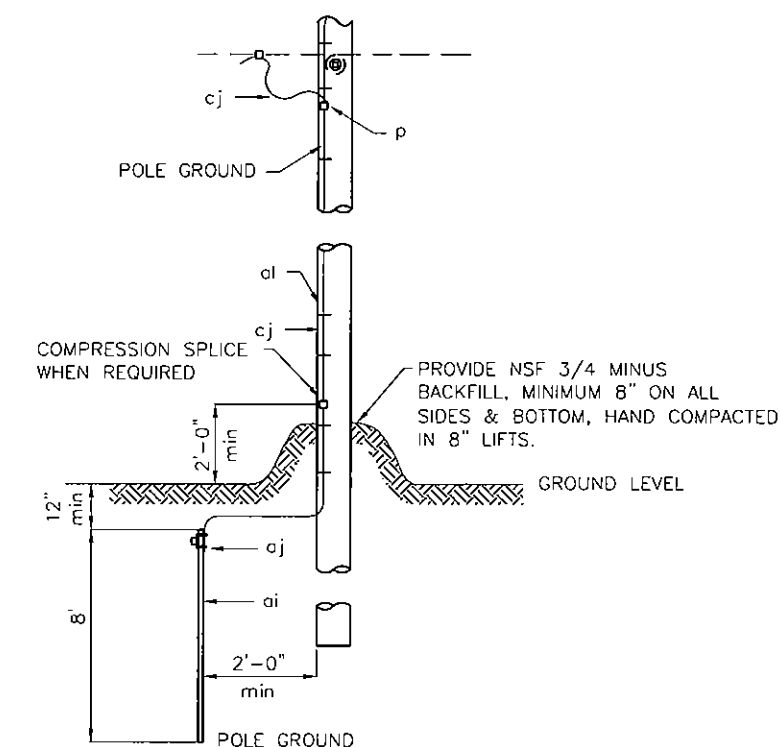
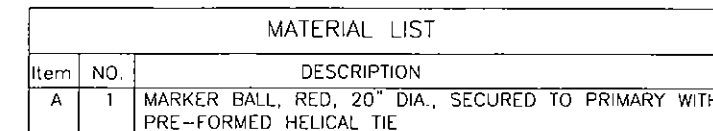
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DATE: 12/3/07
JOB NUMBER: 56630
SCALE: AS SHOWN

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DETAILS

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ELECTRICAL
ENGINEERING, LLC

SHEET: OF

E012



- NOTES:
1. POLE GROUND WIRE TO BE LOCATED ON SAME SIDE AS NEUTRAL CONDUCTOR AND IN QUADRANT OPPOSITE CLIMBING SPACE AND ON ONE SIDE OF RISER.
 2. STAPLES ON GROUND WIRES SHALL BE 2'-0" APART. EXCEPT FOR A DISTANCE OF 8'-0" ABOVE GROUND AND 8'-0" FROM TOP OF POLE, WHERE THEY SHALL BE 6" APART.
 3. GROUND WIRE TO CLEAR ALL HARDWARE BY 2" MINIMUM, AND SHALL BE STAPLED TO MAINTAIN THIS POSITION.
 4. GROUND ARRESTORS, TERMINATIONS, ALUMAFORM BRACKET AND RISER PIPE TO POLE GROUND.
 5. DOUBLE GROUND RISER PIPE TO POLE GROUND.

MATERIAL LIST		
Item	NO.	DESCRIPTION
p	as req'd	CONNECTOR, COMPRESSION
ai	1	ROD, GROUND, COPPER-CLAD STEEL, 5/8" MIN. X 8'
aj	1	EXOTHERMIC WELD TO GROUND ROD
al	AS REQ'D	STAPLES, COPPER
al	1	GROUND WIRE CLIP
cj	AS REQ'D	GROUND WIRE, #6 COPPER
av	AS REQ'D	JUMPER, COPPER

[illegible]

CONDUIT

HEAT SHRINK-SUBMERSIBLE RATED

JACK MOON SIMPLEX ENTRY SEAL

C-L-X CABLE

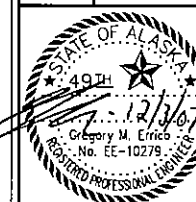
18"

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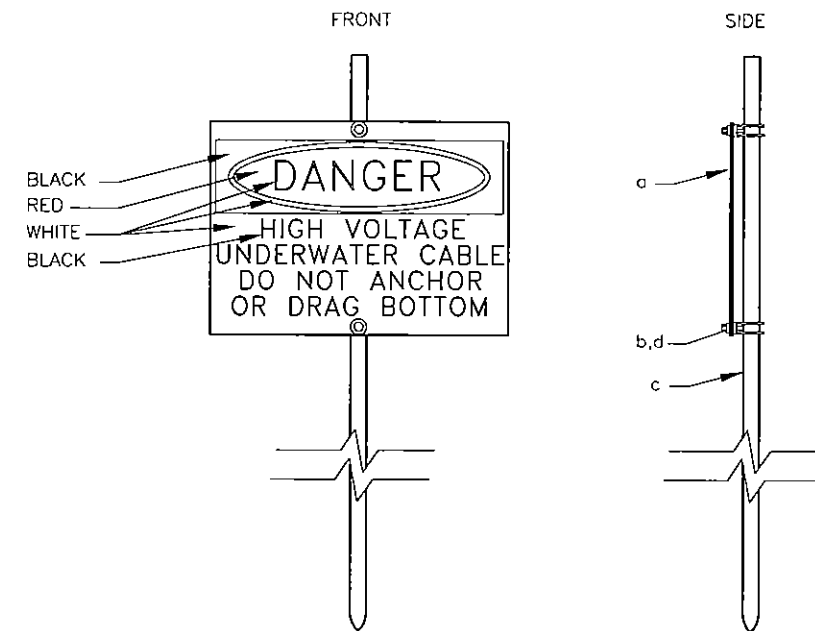
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JOB NUMBER: 56630
SCALE: AS SHOWN

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DETAILS

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ENGINEERING, LLC**

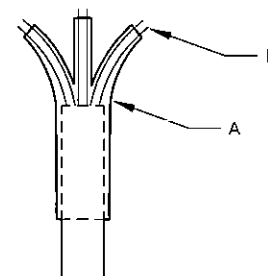
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MATERIAL LIST		
Item	Qty.	DESCRIPTION
a	1	WARNING SIGN, 10"X14"
b	2	CLAMP, GROUND ROD
c	1	GROUND ROD, 3/4"X8' GALV.
d	2	WASHER, ROUND, 3/8"

④ UM12A: WARNING SIGN, UNDERWATER CABLE
NTS



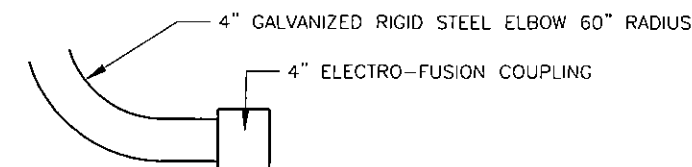
HEAT-SHRINK TRIFURCATING CABLE
BREAKOUT BOOT FOR C-L-X CABLE

MATERIAL LIST		
Item	Qty.	DESCRIPTION
A	1	TRIFURCATING BREAKOUT BOOT KIT, RAYCHEM PART # MOD-3A-HVT
B	AS REQ	UNCOATED REJACKETING TUBING, RAYCHEM PART # MWTM-35/12-1200U

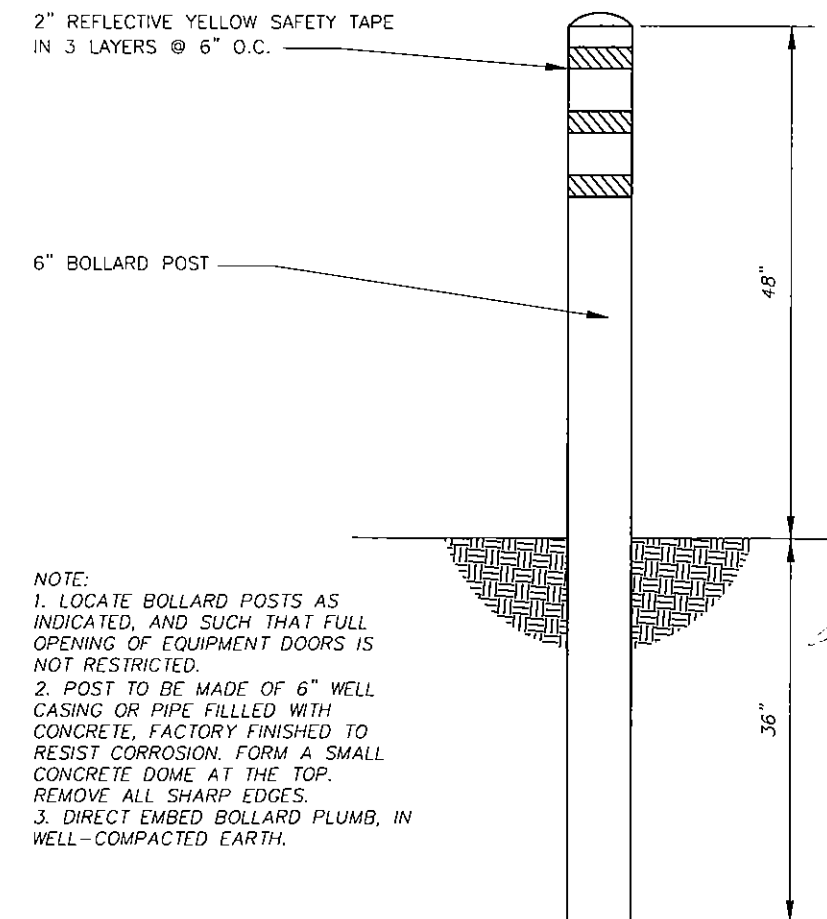
⑤ TRIFURCATING BREAKOUT BOOT DETAIL
NTS

DETAIL SCHEDULE OF STANDARD RUS ASSEMBLIES	
Item	DESCRIPTION
A7	SINGLE-PHASE DEADEND ASSEMBLY
E2-3	SPAN GUY
G312-45	THREE-PHASE TRANSFORMER BANK
M52-3	POLE NUMBER
R1-16	CLEARING UNDERGROUND 16'
R1-30	CLEARING OVERHEAD 30'
UG17-3	3-PHASE PAD MOUNTED LOOP FEED TRANSFORMER WITH RADIAL FEED
UM5	SECONDARY CABLE TERMINAL POLE
UM6-1	LOAD BREAK ELBOW (200A)
UM6-6	GROUND ROD ASSEMBLY
UM6-15	STAND-OFF INSULATOR (200A)

① RUS STANDARD DETAIL SCHEDULE FOR
DETAILS NOT SHOWN IN DRAWING SET



② ELECTROFUSION COUPLING TO HDPE
NTS



NOTE:
1. LOCATE BOLLARD POSTS AS INDICATED, AND SUCH THAT FULL OPENING OF EQUIPMENT DOORS IS NOT RESTRICTED.
2. POST TO BE MADE OF 6" WELL CASING OR PIPE FILLED WITH CONCRETE, FACTORY FINISHED TO RESIST CORROSION. FORM A SMALL CONCRETE DOME AT THE TOP. REMOVE ALL SHARP EDGES.
3. DIRECT EMBED BOLLARD PLUMB, IN WELL-COMPACTED EARTH.

③ BOLLARD DETAIL
NTS

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